

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
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R019 Blunt-nosed Leopard Lizard *Gambelia sila*
Family: Phrynosomatidae Order: Squamata Class: Reptilia

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DISTRIBUTION, ABUNDANCE AND SEASONALITY

Scarce resident of sparsely vegetated alkali and desert scrub habitats. Distribution has been extensively reduced by conversion of habitat to cropland. Currently occurs at scattered sites in the San Joaquin Valley and adjacent foothills. Found at elevations of 30 to 730 m (100 to 2400 ft) (Stebbins 1985) on alkali flats, large washes, arroyos, canyons, and low foothills.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Blunt-nosed leopard lizards are carnivorous. They are opportunistic foragers that hunt on the ground, catching grasshoppers, cicadas and small lizards (including smaller leopard lizards). They commonly forage by slowly stalking prey, then rapidly dashing in to capture it.

Cover: Shade for leopard lizards is provided by mammal burrows, shrubs or structures such as fence posts. Apparently leopard lizards do not excavate their own burrows.

Reproduction: Females sometimes excavate nests by altering vacated mammal burrows (e.g., kangaroo rats, California ground squirrels) to form a closed chamber approximately 50 cm (20 in) below the soil surface.

Water: Apparently no requirement for water.

Pattern: Suitable habitat for leopard lizards is characterized by sparsely vegetated scrub and grassland habitats in areas of low topographic relief. In areas of high relief, distribution is usually confined to broad sandy washes. Do not appear to use slopes > 30-40 degrees (Germano and Williams 1992).

SPECIES LIFE HISTORY

Activity Patterns: These leopard lizards are diurnal. They hibernate during the winter and are active from late March to late June or July. Daily activity pattern, in part, is correlated with ambient temperature. During spring they are active at temperatures from 32° to 41 ° C (82° to 106° F). Females remain active longer than males, possibly because of the need to replenish fat supplies used during egg production.

Seasonal Movements/Migration: Non-migratory.

Home Range: No data.

Territory: No data on size or shape of territory. Incidental data suggest that males establish territories and display aggressive behavior and territorial defense.

Reproduction: Blunt-nosed leopard lizards mate from late April through May. These lizards are often polygynous, but some may remain paired for several seasons. Females usually lay eggs between May and June. The usual clutch size is 3 eggs, but may range from 2 to 6. Females normally produce one clutch per year, although occasionally a second is produced. The incubation period is about 57 days. Females may breed during their first spring, but males may not breed until they are large enough to obtain a territory (Tollestrup 1982, 1983).

Niche: *Gambelia silus* and *G. wislizenii* populations are known to hybridize in Ventura County. Shrikes, American kestrels, spotted skunks, burrowing owls, roadrunners, and ground squirrels are among the known predators. Lizard population densities may be correlated with an abundance of vacated small mammal burrows. Grazing practices that result in maintenance of scattered shrubs and grasses may benefit this lizard.

REFERENCES

- Brode, J. M., D. P. Christenson, J. Lindell, L. Charmley, R. D. Long, D. Johnson, and S. Montgomery. 1978. Blunt-nosed leopard lizard recovery plan. USDI Fish and Wildl. Serv. End. Species Prog. Reg 1, Portland, OR. 61pp.
- California Department of Fish and Game. 1980. At the crossroads. A report on the status of California's endangered and rare fish and wildlife. Sacramento. 149pp.
- Chesemore, D. L. 1981. Blunt-nosed leopard lizard inventory. USDI Bur. of Land Manage., Bakersfield, CA. Contract YA-553-CTO-51. Final Rpt.
- Fisk, L. 1972. Protected amphibians and reptiles. Calif. Dept. Fish and Game Inform. Leaflet No. 28. 29pp.
- Fitch, H. S. 1970. Reproductive cycles in lizards and snakes. Univ. Kans. Mus. Nat. Hist. Misc. Publ. 52:1-247.
- Germano, D. J., and D. F. Williams. 1993. Recovery of the blunt-nosed leopard lizard: past efforts, present knowledge, and future opportunities. Trans. West. Sec. Wildl. Soc. 28:38-47.
- Montanucci, R. R. 1965. Observations on the San Joaquin leopard lizard, *Crotaphytus wislizenii silus* Stejneger. Herpetologica 21:270-283.
- Montanucci, R. R. 1967. Further studies on leopard lizards, *Crotaphytus wislizenii*. Herpetologica 23:119-126.
- Montanucci, R. R. 1970. Analysis of hybridization between *Crotaphytus wislizenii* and *Crotaphytus silus* (Sauria: Iguanidae) in California. Copeia 1970:104-123.
- Montanucci, R. R. 1978. Discriminant analysis of hybridization between leopard lizards, *Gambelia*, (Reptilia, Lacertilia, Iguanidae). J. Herpetol. 12:299-307.
- Mullen, R. K. 1981. Elk Hills endangered species program, environmental assessment of the blunt-nosed leopard lizard, *Crotaphytus silus*, Phase 2, 1980. U. S. Dept. Energy Topical Rept. EEF 1183-2417, Santa Barbara, CA.
- O'Farrell, T. P. 1980. Elk Hills endangered and threatened species program. Phase 1 Progress Summary. U. S. Dept. Energy Topical Rep. EEG 1183-2403. Santa Barbara, CA.
- O'Farrell, T. P., and Kato 1980. Relationship between abundance of blunt-nosed leopard lizards, *Crotaphytus silus*, and intensity of petroleum field development in Kern County, California, 1980. Final Rep., U. S. Dept. Energy Topical Rep. EEG 1183-2413. Santa Barbara, CA.
- O'Farrell, T. P., P. McCue, and T. Kato. 1981. Potential of BLM lands in western Fresno and eastern San Benito Counties for the endangered San Joaquin kit fox, *Vulpes macrotis mutica*, and blunt-nosed leopard lizard, *Crotaphytus silus*. U. S. Dept. Energy Topical Rep. EEG 1183-2440. Santa Barbara, CA.

- Snow, C. 1972. Blunt-nosed leopard lizard, *Crotaphytus silus*. USDI BLM Tech. Note 168. 13pp.
- Stebbins, R. C. 1954. Amphibians and reptiles of western North America. McGraw-Hill, New York. 536pp.
- Stebbins, R. C. 1972. California amphibians and reptiles. Univ. California Press, Berkeley. 152pp.
- Stebbins, R. C. 1985. A field guide to western reptiles and amphibians. 2nd ed., revised. Houghton Mifflin, Boston. 336pp.
- Tollestrup, K. 1979. The ecology, social structure, and foraging behavior of two closely related species of leopard lizards, *Gambelia silus* and *Gambelia wislizenii*. Ph. D. Thesis, Univ. California, Berkeley. 146pp.
- Tollestrup, K. 1982. Growth and reproduction in two closely related species of leopard lizards, *Gambelia silus* and *Gambelia wislizenii*. Amer. Midl. Nat. 108:1-20.
- Tollestrup, K. 1983. The social behavior of two species of closely related leopard lizards, *Gambelia silus* and *Gambelia wislizenii*. Z. Tierpsychol. 62:307-320.
- U.S. Fish and Wildlife Service. 1981. Blunt-nosed leopard lizard recovery plan. USDI Fish and Wildl. Serv. Reg. 1, Portland, OR. 32pp.
- Van Denburgh, J. 1922. The reptiles of western North America. Vol. 2. Lizards. California Acad. Sci., Occas. Pap. 10:1-611.